

Commonwealth of Kentucky
Division for Air Quality
RESPONSE TO COMMENTS

(PROPOSED)

Title V / Synthetic Minor, Construction / Operating

Permit: V-07-039

Stanton Compressor Station

Stanton, KY 40380

January 7, 2008

Luis D. Fuentes, Reviewer

SOURCE ID: 21-197-00006

AGENCY INTEREST: 44369

ACTIVITY: APE20070002

SOURCE DESCRIPTION:

Columbia Gulf Transmission Company owns a compressor station in Stanton, Powell County, KY. Stanton Natural Gas Transmission Station receives natural gas via pipeline or from the storage facility and compresses, or transmits, the natural gas for transport to other locations via pipeline.

Equipment at this station includes:

- Four natural gas reciprocating engines (Cooper-Bessemer LSV-16, 4 stroke lean burn);
- One natural gas turbine & compressor (Pratt & Whitney GC3C-1);
- One natural gas-fired turbine (Solar Mars 100-T15000S); and
- One engine generator (660 HP-4 cycle engine).

The Stanton compressor station of Columbia Gulf Transmission currently operates under the authority of the General Permit Title V Operating Permit G-04-001 Revision 1. Permit No. V-07-039, is a single-source Title V permit being issued to this facility since a synthetic minor permit is necessary for this source. The original permit application for the natural gas-fired Solar Mars 100 turbine, emission unit 08 (EP 108), was based on manufacturer guaranteed minimum power output at an ambient temperature of 0° F and did not address turbine emissions during very cold weather (ambient temperature <0° F), during turbine startups/ shutdowns, and during periods of low load operation (transience shifts, <50% load and/ or <90% NGP speed). At these operating conditions, CO and VOC emissions are higher than during normal operation. Potential emissions, based on the new operating condition information, are above the prevention of significant deterioration of air quality (PSD) significant emissions increase level. Therefore, the facility has requested synthetic minor limits to preclude the applicability of PSD.

PUBLIC AND U.S. EPA REVIEW:

On November 15, 2007, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Clay City Times* in Stanton, Kentucky. The public comment period expired 30 days from the date of publication.

Comments were received from Columbia Gulf Transmission - Stanton Compressor Station on December 21, 2007. Attachment A to this document lists the comments received and the Division's response to each comment. Minor changes were made to the permit as a result of the comments received, however, in no case were any emissions standards, or any monitoring, recordkeeping or

reporting requirements relaxed. Please see Attachment A for a detailed explanation of the changes made to the permit. The U.S. EPA has 45 days to comment on this proposed permit.

COMMENTS AND RESPONSE:

Comments on Stanton compressor station of Columbia Gulf Transmission Draft Title V Air Quality Permit submitted by Kasey Gabbard, NiSource EH&S permitting Coordinator.

Permit Statement of Basis

1. **STATEMENT OF BASIS (page 2 of 3)**— Change Startup/Shutdown emission rates from lb/cycle to lb/hour to ensure consistency and also align with internal Recordkeeping practices. Each SU/SD cycle is tracked then converted in database as total hours (not cycles). For example, each cycle is automatically converted to worse case duration of 19 minutes (9 minutes/start & 10 minutes/shutdown) then multiplied by lb/hr rate.

Division's response: Comment acknowledged, change made.

2. **STATEMENT OF BASIS (page 2 of 3)**— Correct Carbon Monoxide emission summary table accordingly; SU/SD=190.4 lb/hr & Full Load emission rate footnote is derived from 50 ppm @ 0 degrees Fahrenheit 15%O₂.

Division's response: Comment acknowledged, change made.

3. **STATEMENT OF BASIS (page 3 of 3)**— Change annual CO emission cap from 125 TPY to 130 TPY. Application requested 134 TPY (< 99 tons CO increase). Proposed annual CO cap of 125 TPY is could be too restrictive without any regulatory basis.

Division's response: The Division agrees with your request of the limit to be changed to within 5% of the PSD trigger level for CO. The limit is now changed to 129 TPY, which is sum of 35 TPY of reduction credits and 95% of the remainder of emissions (99 TPY).

Title V Permit

4. **SECTION B – EMISSION POINT Solar Mars Turbine (page 7 of 26)**—Source Fuel Input and Power Output is incorrectly listed. Please revise according to data provided in application relating to low temperature (max HP) operation.

Fuel input = 0.1338 mmscf/hr & Power output = 16,883 HP

Division's response: Comment acknowledged, change made.

5. **SECTION B – EMISSION POINT Solar Mars Turbine (page 7 of 26)** — Change annual CO emission cap from 125 TPY to 130 TPY. Application requested 134 TPY (< 99 tons CO increase). Proposed annual CO cap of 125 TPY is could be too restrictive without any regulatory basis.

Division's response: The Division agrees with your request of the limit to be changed to within 5% of the PSD trigger level for CO. The limit is now changed to 129 TPY, which is sum of 35 TPY of

reduction credits and 95% of the remainder of emissions (99 TPY).

6. **SECTION B – EMISSION POINT Solar Mars Turbine (page 7-8 of 26)** Change Startup/Shutdown emission rates from lb/cycle to lb/hour to ensure consistency and also align with internal recordkeeping practices. Each SU/SD cycle is tracked then converted in database as total hours (not cycles).

Division's response: Comment acknowledged, change made.

7. **SECTION B – EMISSION POINT Solar Mars Turbine (page 8 of 26)** Revise specific monitoring condition to correlate with SU/SD revisions above & removed “daily” requirement (noted in attached draft permit mark-up); Even though turbine operation is continuously monitored and data *can* be acquired, facility records are setup to calculate on monthly cycles.

Division's response: Comment acknowledged, change made.

8. **SECTION C – INSIGNIFICANT ACTIVITIES (page 11 of 26)**—Columbia believes that the detailed listing of specific insignificant activities pursuant to 401 KAR 52:020, Section 6 is unnecessary and potentially burdensome. A proposed alternative would be to list insignificant activities & categories similar to current General Permit G-04-001 format. This change would remove any potential undue burden related to reopening the permit for administrative updates related to any future insignificant changes at the facility. Furthermore, removing the specific insignificant activities listing would be consistent with other facility permits. These streamlining procedures are commonplace within many current agency procedures and covered in EPA's Title V White Paper (July 1995).

Division's response: The Division does not concur. This permit is specific to this source; it is not a general permit. Any future insignificant change or addition at the facility will not require reopening the permit. Refer to 401 KAR 52:020 Section 17 for Off-Permit Changes and Section 18 for Section 502(b)(10) Changes.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.